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| 10/604,302 | 07/09/2003 | Hans-Artur Bosser | 21295-55 | 1301 |

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| EXAMINER |
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HANNAHER, CONSTANTINE

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| ART UNIT | PAPER NUMBER |
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2884

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS | 01/08/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| | | | | |
|------------------------------|------------------------|--|---------------------|--|
| Office Action Summary | Application No. | | Applicant(s) | |
| | 10/604,302 | | BOSSER, HANS-ARTUR | |
| | Examiner | | Art Unit | |
| | Constantine Hannaher | | 2884 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11 and 17 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6 and 12-14 is/are rejected.
- 7) ☒ Claim(s) 5, 7-10, 15 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Appeal

1. The brief submitted November 16, 2006 did not contain the items of the brief required by 37 CFR 41.37(c)(1) under the appropriate headings and/or in the order indicated.

The brief did not contain a *concise* explanation of the subject matter defined in each of the independent claims involved in the appeal. Instead, the brief repeated the text of all claims, including dependent claims, and repeated the text of multiple paragraphs of the specification. Also, the brief did not identify every means plus function and step plus function and set forth the corresponding structure, material, or acts, note especially independent claims 12 and 17. 37 CFR 41.37(c)(1)(v).

The brief did not contain any subheadings placed in the Argument regarding whether the claims are argued as a group or argued separately. 37 CFR 41.37(c)(1)(vii).

Claim 11 contained substantial errors as presented in the Appendix to the brief. 37 CFR 41.37(c)(1)(viii). The line "comparing and correcting the present response characteristic;" found on page 15 of the brief should not appear at all, as this phrase is the result of the failure of the amendment after final rejection, as filed on January 18, 2006, to comply with 37 CFR 1.121 in adding this text; compare to the claim as found in the amendment of August 19, 2005.

2. In view of the appeal brief filed on November 16, 2006, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:


DAVID PORTA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

Specification

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Note the use of "The invention is based on" a phrase which can be implied.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4, 6, and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strobel *et al.* (US005561290A) in view of Schulz (US006762403B2).

With respect to independent claim 1, Strobel *et al.* discloses a method corresponding to the illustrated apparatus (Fig. 1) for calibration of an optoelectronic sensor **11** (column 1, line 14) irradiated intermittently with ultraviolet light (*e.g.*, during a hydrogen fire) which would comprise the steps of obtaining a first response characteristic of the sensor **11** by illuminating the sensor with the light of at least one light source **14**, varying the quantity of light incident onto the sensor **11**, and determining the magnitude of an electrical output signal of the sensor as a function of the light quantity received by the sensor **11** (column 2, lines 9-29). The method of Strobel *et al.* provides a pass/fail test for the sensor **11** before installation (column 1, lines 45-47). Schulz teaches a method corresponding to the illustrated apparatus (Fig. 16) for calibration of an optoelectronic sensor (within photocell unit **104**, column 6, line 14) irradiated with ultraviolet light which would comprise the steps of obtaining a first response characteristic of the sensor by illuminating the sensor with the light of at least one light source **86** (*e.g.*, Fig. 10), varying the light quantity incident onto the sensor (actinometric solution placed in passageway **108** darkens upon exposure to ultraviolet light, thus varying the incident light quantity), and determining the magnitude of an electrical output signal of the sensor as a function of the light quantity received by the sensor, storing the first response characteristic (column 5, lines 18-19), acquiring response characteristics at later points in time after illuminating the sensor with ultraviolet light (repeatedly, column 6, line 47), and calibrating the sensor by comparing the response characteristics to the first response characteristics in order to identify changes in the sensor response due to ultraviolet light (column 6, lines 56-57) and to correct the response characteristics (column 6, lines 51-59). In view of the routine changes in photocell sensitivity with ultraviolet irradiation described by Schulz (column 6, lines 56-57), which would have

been recognized as applicable to the intermittently irradiated sensors **11** in the method of Strobel *et al.*, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Strobel *et al.* to take a sensor **11** out of service and reinstate the sensor as a device under test such that a later response characteristic of the sensor was obtained in order to assure that performance was maintained. Microprocessor **102** and memory **106** of Strobel *et al.* would serve to implement the storage and calibration steps suggested by Schulz.

With respect to dependent claim 2, the light quantity incident onto the sensor **11** in the method of Strobel *et al.* is varied by the introduction of at least one filter (Fig. 3) as recited.

With respect to dependent claim 3, more than one filter in the wheel **22** used in the method of Strobel *et al.* is an absorption filter.

With respect to dependent claim 4, the light quantity incident onto the sensor **11** in the method of Strobel *et al.* is varied by the modification of aperture in iris **18** (Fig. 2).

With respect to dependent claim 6, the response characteristics in the method suggested by Strobel *et al.* and Schulz are obtained as recited (Strobel *et al.*, column 3, lines 41-43).

With respect to independent claim 12, Strobel *et al.* discloses an apparatus (Fig. 1) for calibration of an optoelectronic sensor **11** (column 1, line 14) irradiated intermittently with ultraviolet light (*e.g.*, during a hydrogen fire) comprising at least one light source **14** for illuminating the sensor **11**, calibration means **18**, **22** for varying the light quantity incident onto the sensor **11** and for obtaining a first response of the sensor (column 2, lines 9-29), and a memory **106** (Fig. 4). The apparatus of Strobel *et al.* provides a pass/fail test for the sensor **11** before installation (column 1, lines 45-47). Schulz teaches an apparatus (Fig. 16) for calibration of an optoelectronic sensor (within photocell unit **104**, column 6, line 14) irradiated with ultraviolet light which comprises at least one light source **86** (*e.g.*, Fig. 10) for illuminating the sensor, calibration means (column 6, line 46) for

varying the light quantity incident onto the sensor and for obtaining a first response and a present response characteristic of the sensor (the actinometric solution placed in passageway **108** darkens upon exposure to ultraviolet light, thus varying the incident light quantity; this is done repeatedly, column 6, line 47), and a memory for storing at least the first response characteristic (column 5, lines 18-19). The apparatus of Schulz corrects the present response characteristic of the sensor using the first response, column 6, lines 51-59. In view of the routine changes in photocell sensitivity with ultraviolet irradiation described by Schulz (column 6, lines 56-57), which would have been recognized as applicable to the sensors **11** in the apparatus of Strobel *et al.*, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Strobel *et al.* to take a sensor **11** out of service and reinstate the sensor as a device under test such that a present response characteristic of the sensor was obtained in order to assure that performance was maintained. Microprocessor **102** and memory **106** of Strobel *et al.* would serve as the evaluation unit and storage of the first response characteristic to implement the correcting step suggested by Schulz.

With respect to dependent claim 13, the calibration means **18, 22** in the apparatus of Strobel *et al.* are one or more of the recited elements.

With respect to dependent claim 14, Strobel *et al.* discloses a control device (Fig. 4) for automated use of the calibration means (column 2, lines 9-18).

Response to Submission(s)

6. The amendment filed January 18, 2006 has been entered. MPEP § 1207.04. The amendment does not comply with 37 CFR 1.121. Note especially independent claim 17.

7. This application has been published as DE 10233175 A1 on February 12, 2004 and again as US2004/0108448A1 on June 10, 2004.

8. Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new ground of rejection. Nevertheless, those arguments found in the appeal brief are not persuasive.

In response to applicant's argument that Brody *et al.* is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Brody *et al.* explicitly states (column 1, lines 5-10) that the disclosure is "within the field of photometry, dealing specifically with calibration of instruments replying on photometric emission and detection, such as flame photometers and spectrophotometers, and fluorescence and phosphorescence spectrophotometers and photometers." That in a disclosed embodiment Brody *et al.* excites the sample by flame rather than by a lamp or other light source is not relevant, as the lamps which might be used in an ultraviolet microscope would also be used in the fluorescence instruments which the disclosure of Brody *et al.* is *explicitly* directed to. Thus, the pertinence of the teachings of Brody *et al.* to a photodetecting instrument is reasonable. Also, independent claims 1 and 12 do not require anything like a "high resolution optical microscope" so the field of applicant's endeavor has not been appropriately identified.

The brief identifies no error in applying Engelhardt. Arguments against an individual reference applied in a combination under 35 U.S.C. 103(a) are not responsive to the rejection.

A statement which merely points out what a claim recites will not be considered an argument for separate patentability of the claim. Thus, the rejection of claims 1, 11, 12, and 17 could have been decided on the basis of claim 12 alone.

The argument that Brody *et al.* is nonanalogous and the argument that Brody *et al.* does not disclose the elements of the claims exhausts the arguments found in the brief. Accordingly, the withdrawal of these rejections in reopening prosecution in no way relies on these arguments. Nevertheless, the application of Strobel *et al.* and Schulz addresses arguments made in reply to the final rejection regarding the disclosure of obtaining responses at multiple times and identifying changes in the sensor over time due to irradiation by ultraviolet light.

Allowable Subject Matter

9. Claims 11 and 17 are allowed.
10. Claims 5, 7-10, 15, and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
11. The following is a statement of reasons for the indication of allowable subject matter: although these features can be presumed to be known, the applied references do not suggest a combination with electronic control of exposure time, an imaging sensor, or an ultraviolet microscope.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Constantine Hannaher whose telephone number is (571) 272-2437. The examiner can normally be reached on Monday-Friday with flexible hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ch


Constantine Hannaher
Primary Examiner